

**AMENDMENTS TO THE CLAIMS:**

The following list of claims replaces all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (currently amended): A process for preparing an established avian embryonic germ (EG) cell line, which comprises the steps of:

(a) culturing primordial germ cells (PGCs) isolated from a gonad of an avian embryo at a stage ranging from ~~20 to 36~~ 14 to 36 with a feeder layer in a medium supplemented with a cell growth factor and a differentiation inhibitory factor for a period of time sufficient to ~~produce a cell population of PGCs containing~~ obtain EG cell colonies;

(b) ~~culturing the cell population of PGCs containing EG cells~~ contained in said EG cell colonies in a medium supplemented with the cell growth factor and the differentiation inhibitory factor as in step (a) ~~with a mitotically active~~ by employing a feeder layer until the EG cells are colonized for a period of time sufficient to ~~preferentially obtain~~ produce EG cell colonies; and

(c) recovering and subculturing the EG cells contained in said EG cell colonies of step (b) in a medium supplemented with the cell growth factor and the differentiation inhibitory factor as in step (a) ~~with a mitotically active~~ feeder layer for a period of time sufficient to establish the EG cell line consisting essentially of

undifferentiated avian cells expressing avian EG cell characteristics, wherein the undifferentiated avian cells of the EG cell line expressing avian EG cell characteristics are stained with Periodic Acid-Shiff's (PAS) reagent, are reactive to anti-SSEA-1 antibody, show substantially no alkaline phosphatase activity, form an embryoid body in the absence of a differentiation inhibitory factor, are capable of differentiating into various cell types and when injected to a recipient egg, a chimera expressing the EG cell phenotype is produced.

2-3. (canceled).

4. (original): The process of claim 1, wherein the avian species is turkey, chicken, quail, pheasant or duck.

5. (currently amended): The process of claim 1, wherein the feeder layer used in step (a) is a layer of germinal ridge stroma cells (GRSCs) ~~present in the gonad of the avian embryo at a stage ranging from 20 to 36.~~

6. (original): The process of claim 1, wherein the growth factor is selected from the group consisting of stem cell factor (SCF), basic fibroblast growth factor (bFGF), interleukin-11 (IL-11), insulin-like growth factor-I (IGF-I) and a mixture thereof.

7. (previously presented): The process of claim 1, wherein the growth factor is selected from the group consisting of 0.05 to 500 ng/ml of SCF, 0.1 to 1000 ng/ml of bFGF, 0.0004 to 4 ng/ml of IL-11, 0.1 to 1000 ng/ml of IGF-I and a mixture thereof.

8. (original): The process of claim 1, wherein the differentiation inhibitory factor is leukemia inhibitory factor (LIF).

9. (original): The process of claim 8, wherein the amount of LIF is 0.1 to 1000 units/ml.

10. (original): The process of claim 1, wherein the medium further comprises mammalian or avian serum.

11. (original): The process of claim 1, wherein the medium further comprises a supplementary ingredient selected from the group consisting of sodium pyruvate, glutamine,  $\beta$ -mercaptoethanol and a mixture thereof.

12. (canceled).

13. (currently amended): The process of claim 1, wherein the feeder layer in steps b and/or (c) is fibroblast.

14. (original): The process of claim 13, wherein the fibroblast is avian fibroblast or avian embryonic fibroblast.

15. (original): The process of claim 14, wherein the avian species is chicken.

16. (withdrawn): An avian embryonic germ (EG) cell line prepared in accordance with the process of claim 1.

17. (withdrawn): The avian EG cell line of claim 16, which can be maintained by repeated subculture.

18. (withdrawn): The avian EG cell line of claim 16, which expresses SSEA-1 antigen, forms an embryoid body, and differentiates and contributes to various tissues.

19. (withdrawn): The avian EG cell line of claim 16, which is a chicken embryonic germ cell line having characteristics substantially identical to that deposited under the accession number of KCLRF-BP-00026.

20. (withdrawn): A process for preparing a somatic or germline chimera comprising injecting the avian EG cell of claim 16 into an egg.

21. (withdrawn): The process of claim 20, wherein the EG cell is injected into a germinal cavity or blood vessel of the egg.

22. (withdrawn): The process of claim 21, wherein the EG cell is injected into the germinal cavity of the egg at a stage X.

23. (withdrawn): The process of claim 21, wherein the EG cell is injected into the blood vessel of the egg at a stage ranging from 13 to 17.

24. (withdrawn): A process for transfecting a foreign gene into EG cells or PGCs characterized by using electroporation or liposome.

25. (withdrawn): A process for selecting stably transfected EG cells or PGCs comprising passaging EG cells transfected by a foreign gene in a medium containing an antibiotic.

26. (canceled).

27. (new): The process of claim 1, wherein the avian embryonic gonad is at a stage ranging from 24 to 30.

28. (new): The process of claim 1, wherein the feeder layer employed in steps (b) and/or (c) is mitotically active.

29. (new): A process for preparing an established avian embryonic germ (EG) cell line, which comprises the steps of:

(a) culturing primordial germ cells (PGCs) isolated from a gonad of an avian embryo at a stage ranging from 24 to 30 by employing a layer of germinal ridge stroma cells (GRSCs) as a feeder layer in a medium supplemented with a cell growth factor and leukemia inhibitory factor (LIF) for a period of time sufficient to obtain EG cell colonies, wherein the growth factor comprises IL-11 and IGF-I as an essential ingredient for the survival and proliferation of EG cells;

(b) culturing EG cells contained in said EG cell colonies in a medium supplemented with the cell growth factor and leukemia inhibitory factor (LIF) as in step (a) by employing a mitotically active feeder layer for a period of time sufficient to produce EG cell colonies, wherein the growth factor comprises IL-11 and IGF-I as an essential ingredient for the survival and proliferation of EG cells; and

(c) recovering and subculturing EG cells contained in said EG cell colonies of step (b) in a medium supplemented with the cell growth factor and leukemia inhibitory factor (LIF) as in step (a) with a mitotically active feeder layer for a period of time sufficient to establish the EG cell line consisting essentially of undifferentiated avian cells expressing EG cell characteristics, wherein the growth factor comprises IL-11 and IGF-I as an essential ingredient for the survival and proliferation of EG cells, and wherein the undifferentiated avian cells of the EG cell line expressing EG cell characteristics are stained with Periodic Acid-Shiff's (PAS) reagent, are reactive to anti-SSEA-1 antibody, show substantially no alkaline phosphatase activity, form an embryoid body in the absence of a differentiation inhibitory factor, are capable of differentiating into various cell types and when injected to a recipient egg, a chimera expressing the EG cell phenotype is produced.

30. (new): The process of claim 29, wherein the avian species is turkey, chicken, quail, pheasant or duck.

31. (new): The process of claim 29, wherein the growth factor further comprises stem cell factor(SCF), basic fibroblast growth factor(bFGF) or a mixture thereof.

32. (new): The process of claim 29, wherein the amount of IL-11 is from 0.0004 to 4 ng/ml and the amount of IGF-I is from 0.1 to 1000 ng/ml.

33. (new): The process of claim 31, wherein the amount of SCF is from 0.05 to 500 ng/ml and the amount of bFGF is from 0.1 to 1000 ng/ml.

34. (new): The process of claim 29, wherein the amount of LIF is 0.1 to 1000 units/ml.

35. (new): The process of claim 29, wherein the medium further comprises mammalian or avian serum.

36. (new): The process of claim 29, wherein the medium further comprises a supplementary ingredient selected from the group consisting of sodium pyruvate, glutamine,  $\beta$ -mercaptoethanol and a mixture thereof.

37. (new): The process of claim 29, wherein the feeder layer employed in step (b) and/or (c) is fibroblast.

38. (new): The process of claim 37, wherein the fibroblast is avian fibroblast or avian embryonic fibroblast.

39. (new): The process of claim 38, wherein the avian species is chicken.